

Date: Fri, 17 Dec 93 04:30:24 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #135
To: Ham-Homebrew

Ham-Homebrew Digest Fri, 17 Dec 93 Volume 93 : Issue 135

Today's Topics:

 DDS article where???

 DF Question

 Feedthrough Capacitors

 PIN diode question

 Spray-on shielding (2 msgs)

 VHF switching diodes

 Wanna build VLF rcvr. Info?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>

Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 9 Dec 1993 13:42:11 GMT
From: olivea!news.bu.edu!att!cbnewsm!jeffj@uunet.uu.net
Subject: DDS article where???

To: ham-homebrew@ucsd.edu

I was looking through my back issues of QST, 73 and CQ magazines last
night looking for a article on a DDS VFO that a ham in Canada wrote.
He also named the VFO after his daughter. I hope these are enough clues
so that someone will remember in what magazine and when the article was
published. Thanks!

Jeff

--

Jeff Jones AB6MB | Vote out those who voted for the North American
jeffj@seeker.mystic.com | Free Trade Agreement!
Infolinc BBS 510-778-5929 |

Date: Tue, 14 Dec 93 14:33:33 EST
From: vnet.IBM.COM@uunet.uu.net
Subject: DF Question
To: ham-homebrew@ucsd.edu

There is an article in "73 Amateur Radio Today" on a Handi-Finder DF kit. The article says that the design is based on a circuit published for use by the Coast Guard Auxiliary. Anyone have an idea where I can find a copy of the paper that was published for the Coast Guard Auxillery?

Thanks

Felix Sawicki

Date: 14 Dec 93 15:31:16
From: news.mentorg.com!hpcan240.mentorg.com!hpcan240!c2k@uunet.uu.net
Subject: Feedthrough Capacitors
To: ham-homebrew@ucsd.edu

In article <2eks6e\$so2@msuinfo.cl.msu.edu> cravitma@cps.msu.edu (Matthew B Cravit) writes:

Path: hpcan240.mentorg.com!news.mentorg.com!uunet!pipex!howland.reston.ans.net!
agate!msuinfo!arctic2!cravitma
From: cravitma@cps.msu.edu (Matthew B Cravit)
Newsgroups: rec.radio.amateur.homebrew
Subject: Feedthrough Capacitors
Date: 14 Dec 1993 17:12:46 GMT
Organization: Department of Computer Science, Michigan State University
Lines: 15
Distribution: usa
Message-ID: <2eks6e\$so2@msuinfo.cl.msu.edu>
NNTP-Posting-Host: arctic2.cps.msu.edu
Originator: cravitma@arctic2

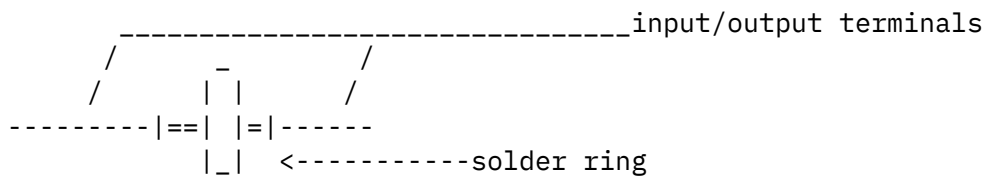
I have decided to try to build one of the 144 MHz amplifiers from the ARRL handbook, and came across a part which I don't think I ever saw before in my limited electronics background. Can someone please tell me what a feedthrough capacitor is, and why it would be used instead of a regular capacitor?

Thanks very much.

/Matthew (Still waiting for my ticket, 5 weeks and counting)

A feedthrough capacitor is a typically small-value capacitor with three terminals. Two of the terminals are at opposite ends of the capacitor, and are connected together. The body of the capacitor typically has a solder-ring which forms the third terminal, and is the other side of the capacitor. These are used to provide low inductance bypass to ground for RF signals -- often for power or lower frequency signals which pass into or out of an "RF-hot" compartment.

Bad ASCII graphics:



Cheers,
Carl

My opinions are mine, (all mine), and do not necessarily reflect those of my employer.

Carl Ketcham carl_ketcham@mentorg.com WA7ZBV
Mentor Graphics, Suite 300, 5295 South 300 West, Murray, Utah 84107

Date: Mon, 13 Dec 1993 22:52:54 GMT
From: sgiblab!swrinde!cs.utexas.edu!math.ohio-state.edu!uwm.edu!msuinfo!
harbinger.cc.monash.edu.au!bruce.cs.monash.edu.au!trlluna!titan!pcies4.trl.OZ.AU!
drew@ames.arpa
Subject: PIN diode question
To: ham-homebrew@ucsd.edu

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In article <CHzpJ8.333@SSD.intel.com> rlt@ssd.intel.com (Roger Traylor) writes:
>From: rlt@ssd.intel.com (Roger Traylor)
>Subject: PIN diode question
>Date: Mon, 13 Dec 1993 20:13:56 GMT
>Dear PIN diode hotshots:
>
>I am considering using PIN diodes to switch between bandpass
>networks in a project.  However, I read in Hewlett Packard
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>Application note 922 about the low frequency limit at which
>these devices can be used. It mentions that at frequencies
>well below $f_c = 1/(2\pi\tau)$ that a PIN diode acts like an
>ordinary PN diode. At frequencies about $10f_c$, the PIN diode
>looks like a variable resistor.

>

>My question is: does this restriction apply only to
>applications where the diode is used in the linear resistance
>region. My application would operate only in the fully "on"
>or fully "off" (i.e. switch) regions. Are there any other
>"gotchas" for PIN diode usage at 3-30MHz?

>

>Thanks

>

>--

> Roger Traylor

> rlt@ssd.intel.com

> Intel Corporation - Supercomputer Systems Division

> Beaverton, OR 97006

Roger, in a simple on or off application, you can probably get away with ordinary small-signal diodes e.g. 1N914's.

When the diode is biased on, the peak value of the signal being carried by the diode must not be so great as to turn the diode off, and when the diode is biased off, the signal being blocked must not be large enough to turn the diode on. See Ten Tec circuits for examples.

Kind Regards,

Drew, VK3XU. Telecom Australia Research Laboratories.

Date: 16 Dec 93 13:36:26 GMT

From: ogicse!uwm.edu!spool.mu.edu!caen!downmac165.engin.umich.edu!
user@network.ucsd.edu

Subject: Spray-on shielding

To: ham-homebrew@ucsd.edu

In article <1993Dec16.010158.16158@ncsu.edu>,
samodena@csemail.cropsci.ncsu.edu (S. A. Modena) wrote:

> Would anyone be able to steer me to a product and source for spray on
> shielding? Such as I see as a sprayed on black crinkle layer on the
> inside of plastic bezel parts on PCs...are there conductive-upon-
> drying spray (or dip) paints available?

>

> Thanks,
>
> Steve Modena (AB4EL) nmodena@unity.ncsu.edu

Miller-Stephenson Chemical Co. makes a product called MS-485 RFI Conductive Coating. This is a spray which can be used on plastics as well as metals. The spec sheet I have for it claims an attenuation range of 105 dB @ .150 MHz to 44 dB @ 1000 MHz for a 2 mil thickness.

My information is several years old, but may still be valid.

Miller Stephenson Chemical Co.
George Washington Highway
Danbury, Connecticut 06810
(203) 743-4447

Date: 16 Dec 93 14:26:19 GMT
From: ogicse!uwm.edu!fnnews.fnal.gov!usenet@network.ucsd.edu
Subject: Spray-on shielding
To: ham-homebrew@ucsd.edu

In article <1993Dec16.010158.16158@ncsu.edu> samodena@csemail.cropsci.ncsu.edu (S. A. Modena) writes:
>Would anyone be able to steer me to a product and source for spray on
>shielding?...
>Steve Modena (AB4EL)

Try the Miller-Stephenson Chemical Co., George Washington Highway,
Danbury, CT, 06810, 203-743-4447. I believe they produce a conductive paint
that may fit you requirement.

Paul Kasley, wa9vyb

Date: 16 Dec 1993 14:00:42 GMT
From: sdd.hp.com!cs.utexas.edu!howland.reston.ans.net!EU.net!news.funet.fi!
news.eunet.fi!funic!nokia.fi!davies@network.ucsd.edu
Subject: VHF switching diodes
To: ham-homebrew@ucsd.edu

Andrew Thomason (andrew@pmms.cam.ac.uk) wrote:
> I am working on a circuit using BA482 diodes, described as
> "VHF switching diodes". Who makes them? What are their specs?
> Are they PIN diodes?

My Philips Quick Ref. Guide lists BA482 and a bandswitch diode, for VHF use, D034 outline, rated $V_r=35V$ max, $I_f=100mA$ max, series impedance when switched on $r_{Rd}=0.7\Omega$ (running at 3mA forward current).

Sorry no more info that that, but Philips diodes data book (or Mullard, Elcoma, depending on age/intended-country of data book should give more info.

Regards, Steve Davies, davies@mobira.nmp.nokia.com

Date: Tue, 14 Dec 1993 04:30:45 GMT
From: wyvern!mlf@uunet.uu.net
Subject: Wanna build VLF rcvr. Info?
To: ham-homebrew@ucsd.edu

groverc@gvgadg.gvg.tek.com writes:

>In article <1993Dec10.182028.2774@Mr-Hyde.aoc.nrao.edu>,
><pharden@Mr-Hyde.aoc.nrao.edu> writes:
>> Does anyone know the whereabouts of information for building
>> a VLF receiver (500 kHz and below?). Either a kit or 100%
>> homebrew?
>>
>I need the same info, should anyone have it.
>Grover
>WT6P

2 or 3 years ago, 73 magazine had an article on a VLF transverter.
You could buy the kit from Curry communications, in California,
I think.

Hope this helps!

73, de Mark, KD4GGP

--

"Ad Astra, Per Aspera"

End of Ham-Homebrew Digest V93 #135

